UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,217	11/25/2003	Jiafu Fang	TS6737 (US)	6793

23632 7590 03/20/2006

SHELL OIL COMPANY
P O BOX 2463
HOUSTON, TX 772522463

EXAMINER	
CAMERON, ERMA C	
ART UNIT	**PAPER NUMBER**
1762	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/722,217	FANG, JIAFU	
	Examiner	Art Unit	
	Erma Cameron	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2005 and 17 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4-25* is/are pending in the application.

4a) Of the above claim(s) *5-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed 12/5/2005 and 1/17/2006 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The rejection of Claims 1 and 25 under 35 U.S.C. 102(b) as being clearly anticipated by Johansson et al (3914478) is withdrawn because of the amendments filed 12/5/2005 and 1/17/2006.

4. The rejection of Claims 1-4 and 25 under 35 U.S.C. 102(b) as being clearly anticipated by Patitas et al (5491591) is withdrawn because of the amendments filed 12/5/2005 and 1/17/2006.

5. The rejection of Claims 1-2 and 25 under 35 U.S.C. 102(b) as being clearly anticipated by JP 64-000171 is withdrawn because of the amendments filed 12/5/2005 and 1/17/2006.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. The rejection of Claims 1-2 under 35 U.S.C. 102(a) as being clearly anticipated by WO 01/94453 is withdrawn because of the amendments filed 12/5/2005 and 1/17/2006.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1, 4 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patitsas et al (5149591).

'591 teaches coating a water dispersion of polyurethane on a tire to form a protective dry film coating (1:8-5:48). The coating formulation may contain defoamer and other additives (see Example 3). The defoamer is identified as a paraffin oil based material, i.e. a non-silicone defoamer. There is no functionalizing pretreatment of the tire.

'591 does not teach the tensile strength of the coating, but does teach that the coating should be humidity resistant and abrasion resistant. Because polyurethane is used in both the '591 process and applicant's process, and because the end result of each coating is a coating that is resilient and is used on a tire, the tensile strength of the coatings are expected to at least overlap.

10. Claims 1, 4 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 64-000171.

'171 teaches a lustering and protecting coating for tires that is a dispersion of urethane or other polymers in water (or other solvents) (see Abstracts and translation).

Silicone oils may be used with the polymers (see pages 3 and 4 of translation). It appears that the silicone oil would act as a defoamer.

'171 does not teach that the tensile strength is >500psi, but does teach that the coating should be water resistant. Because both applicant's coating and the coating of '171 are used on tires, which are known to experience deformation during use and delamination problems, and because both applicant and '171 use urethane coatings, it is expected that the tensile strength of the '171 coating and applicant's coating would at least overlap.

11. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO01/94453 taken in view of Patitsas et al (5149591).

'453 teaches applying an aqueous dispersion of polyurethane to a tire as an ozone protectant (see abstract; US 2003/0127170 may serve as translation of WO 01/94553).

'453 teaches that the coating must be flexible and be able to withstand all the deformations experienced by tires [0013], as well as pass certain endurance tests [0046-0050], but does not teach that the tensile strength is >500psi.

Because both applicant's coating and the coating of '453 are used on tires, which are known to experience deformation during use and delamination problems, and because both applicant and '453 use urethane coatings, it is expected that the tensile strength of the '453 coating and applicant's coating would at least overlap.

'453 does not teach an antifoaming agent.

'591 teaches that a defoamer such as a paraffin oil-based material is a conventional additive to a polyurethane coating used on a tire (see Example 3).

It would have been obvious to one of ordinary skill in the art to have incorporated the defoamer of '591 into the '453 coating composition because of the teaching of '591 that such an additive is conventional in a polyurethane coating used on a tire.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1, 4 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1: glossy has not been defined, and is therefore vague. How glossy must the coating be? The applicant says that glossy means smooth and shining, but this does not adequately define the term.

b) Claim 25: there is no antecedent basis for the tire surface comprising elastomers.

Specification

14. The disclosure is objected to because of the following informalities: methods is misspelled in the title.

Appropriate correction is required.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erma Cameron whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erma Cameron

ERMA CAMERON
PRIMARY EXAMINER

March 16, 2006

Erma Cameron
Primary Examiner
Art Unit 1762